**Steven Levy on the Perils of Cloud Computing**

* By Steven Levy



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* What would happen if your future arrived too early? If you got the keys to your first car when you were eight? Landed your first big management job at 15?
* I’ve been asking those questions while playing with the Cr-48 laptop, the first implementation of Google’s cloud-based Chrome operating system. After a few months with it, I feel like it’s important, but I also think it’s from a future we’re simply not ready for.
* The Cr-48 has minimal local storage, no discernible file system, no print drivers, and no client applications to install. That’s because Google has tossed the concept of local content, moved everything to the cloud, and replaced the desktop with a browser. Want to know what it’s like? Open a browser and ignore everything else on your machine. The world is yours—as long as it’s available on the Web.
* Using the Cr-48 for the first time is like diving into cold water; after you get over the shock, it’s quite bracing. The advantages of going all-in, cloudwise, are obvious. Bootup takes seconds; upgrades occur automatically, including for applications, which all run on the web; and if you lose your device, you don’t lose all your data.
* OK, that last part is more of a goal than a reality, as the 150,000 Gmail users who saw their accounts temporarily wiped clean in February found out the hard way. But another specter looms over the whole enterprise: Can we count on connectivity? Promises to bring broadband to every corner of the nation have so far proven empty. And a Chrome OS device not connected to the Internet is … a keyboard. Google’s solution is built-in cellular 3G. Fees for this pilot project are zero for the first 100 megabytes of data each month, $20 per gigabyte per month thereafter. That’s fine for simple document creation but very costly if you’re streaming video.
* These shortcomings highlight the lack of pervasive, reasonably priced, and truly high-speed broadband in the United States. And now that telcos and cable companies are starting to charge by the amount of data used, people will be less likely to embrace innovations that rely on high-speed connections. Google’s system assumes an infrastructure that we don’t have.
* In addition, the legal and regulatory framework for cloud computing is still evolving, as we are reminded by the government subpoenas for digital information on people tied to Wikileaks. If we’re going to make the leap to the cloud, we’ll need renewed assurances that personal data on the servers of Google or other companies will enjoy the same protections as the information stored on our personal hard drives and in our desk drawers.
* More prosaically, in the short term, adopting the Google model means leaving behind every software program that runs native on the computer. Google can rattle off legitimate alternatives, many of them its own products, and desktop stalwarts like Microsoft Office, Skype, and, it’s rumored, iTunes, are taking to the cloud as well. Unfortunately for Google, there are still plenty of client apps that won’t soon be duplicated—and efforts like Apple’s Mac App Store are introducing even more. In addition, many businesses continue to rely on specialized desktop-based software.
* In Google’s defense, part of Chrome’s raison d’être is to hasten the development of cloud apps and sweep the very concepts of hard drives and client software into the dustbin of computer history. The company wants us to leave behind our fixation on physically possessing our data and using applications that run directly on the computer. We can be lighter and more nimble.
* I agree with Google that the current paradigm will one day be considered irrational and even quaint. But that day isn’t here.